

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Brian G. Morin et al.

Serial Number:

09/178,396

Filed:

October 23, 1998

For:

Textile Fabric With Particle Attracting
Finish

Group Art Unit: 1771

Examiner: Pratt, C.

Response to January 11, 2001
Office Action

Honorable Commissioner for Patents
Washington, D. C. 20231

Sir:

In response to the January 11, 2001 Patent and Trademark Office Action, Applicants submit the attached Request for Continued Examination and fee, and the following new evidence and arguments. Additionally, Applicants include a Supplemental Information Disclosure Statement.

New Evidence

The final rejection of the pending claims is based in whole or in part on Yahiaoui et al., U.S. 5,814,567 ("Yahiaoui"). The examiner notes that in addition to spunbond fabrics, Yahiaoui also teaches that woven, knitted, wet-laid, dry-laid and melt blown nonwoven fabrics are suitable substrates.

"It is the examiner's position that if applicant's experimental testing were performed with these other fabrics that are taught by Yahiaoui, then the properties

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claimed by applicant would be achieved. This position is supported by the fact that applicant claims the same fabrics taught by Yahiaoui."

First, Applicants point out that a needlepunched, nonwoven fabric and a spunbond, nonwoven fabric were each coated with various hydrophilic polymers according to Yahiaoui and tested for particle release. The results are reported in Table 1 of the Affidavit of Dr. Brian G. Morin dated October 29, 2000. Fabric B, the spunbond, nonwoven fabric had even been calandered, which tends to seal the fabric and minimize the particle release. Nevertheless, the particles greater than 0.5 microns / square meter were 66 million or more, as measured by Biaxial Shake Test IEST-RP-CP-CC004.2.

Second, Applicants submit the Affidavit of Dr. Brian G. Morin, dated June 1, 2001, describing additional testing on knit and woven fabrics, according to Yahiaoui. The results were dramatic; neither of the treated fabrics approached the maximum allowed particle release values claimed by Applicant. For example, in testing performed on the knit and woven fabrics, each with three different hydrophilic polymer coatings, the lowest observed particle counts were:

987 million particles greater than 0.5 microns / square meter, and

6.82 million particles greater than 5.0 microns / square meter, as measured by Biaxial Shake Test IEST-RP-CP-CC004.2.

Thus, Applicants have demonstrated that regardless of whether the fabric tested according to Yahiaoui is a woven, knitted or nonwoven fabric, it has particle release characteristics outside of the claimed range. Furthermore, the evidence demonstrates that Applicants had already selected and tested the fabrics that were likely to have the lowest particle release characteristics, that is, the spunbond, nonwoven fabrics.

There is simply no basis in fact that for the examiner's conclusions that since Applicant's and Yahiaoui employ similar substrates, they therefore must achieve similar results with regard to particle release characteristics. Attention is directed to page 11, lines 3-13; in order to achieve the low particle release characteristics, the fabric is washed in a cleanroom laundry. Yahiaoui has nothing to do with cleanroom wipers. It is only the wildest speculation on the part of the examiner to assume that any textile fabric can meet the particle release requirements of a cleanroom wiper. The evidence demonstrates that the assumption is unfounded.

Claim rejections – 35USC§102

Claims 1-5, 7-11, 13-16, 18-20, and 24-30 were rejected under 35USC§102 (e) as anticipated by or, in the alternative, under 35USC§103 (a) as obvious over Yahiaoui et al. (5,814,567), as set forth in the last action. The examiner maintains that since Applicant claims the same fabrics taught Yahiaoui, then the properties claimed by Applicant would be observed in the fabrics of Yahiaoui.

Applicant has addressed the grounds for the rejection in the previous section entitled "New Evidence". In particular, Applicants has demonstrated that, regardless of whether a fabric is woven, knitted or nonwoven, and regardless of whether it is coated with a hydrophilic polymer, it cannot be assumed to meet the stringent particle release requirements of a cleanroom wiper.

Claim rejections – 35USC§103

Claims 17 were rejected under 35USC§103 (a) as being unpatentable over Yahiaoui et al. (5,814,567). Claim 17 included a limitation on the denier of the yarns used to construct the

fabric. The Examiner finds that the skilled artisan would have been motivated to select such a denier by the reasoned expectation of varying the flexibility and hand of the fabric.

The Examiner's argument is missing several key components, which are required to make out of *prima facie* case of obviousness. First, Applicant has previously demonstrated that the woven or knitted textile fabrics treated according to Yahiaoui do not fall within the limitations of the underlying independent claim, Claim 14. Attention is directed to the Affidavit of Dr. Morin dated June 1, 2001. The knitted fabric that was tested by Dr. Morin was constructed of 70 denier yarns. The yarns fall directly within the claimed 15-250 denier limitation containing in Claim 17.

There is simply no suggestion to modify Yahiaoui to meet the particle release requirement of a cleanroom wiper. Absent such a motivation, there is simply no basis for suggesting that the skilled person would have modified Yahiaoui to discover the optimal workable ranges. Only in hindsight, having the benefit of Applicants invention, would the skilled person even have an understanding of the objectives to be reached.

Claim 21-23 were rejected 35 USC§103 (a) as being unpatentable over Yahiaoui et al. (5,814,567), as set forth in the last action.

Likewise, an Amendment A, Applicant has fully addressed the ground for the rejection. To briefly reiterate, Yahiaoui teaches a way from using a surfactant treatment on the fabric, stating that "the coating of hydrophilic polymeric material will not significantly suppress the surface tensions of an aqueous medium with which the coated porous substrate may come in contact." (Yahiaoui, column 19, line 38-column 20, line 2). If the surface tension of the aqueous

medium is lowered, the fabric may wick water, which is undesirable in diaper and feminine hygiene product applications.

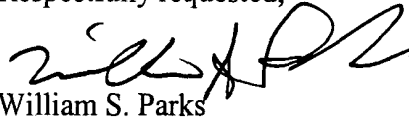
Claims 6, 12 and 31 were rejected under 35USC§103 (a) as being unpatentable over Yahiaoui (5,814,567) in view of Applicants admitted prior art, as set forth in the last action. The examiner maintains that the skilled artisan would have been motivated to presaturate a wipe in a package, by the reasoned expectations of rendering the wipe more commercially attractive to consumers.

Applicant reiterates that Claims 6, 12 and 31 are dependent claims and the Yahiaoui et al. reference fails to anticipate or render obvious the underlying independent claims, Claims 1, 8 and 24, respectively. Secondly, the fabrics that are used as presaturated wipers tend to be absorbent. In order to increase absorbancy, the weight of the fabric is increased, thereby increasing the particle release on a square meter basis. Any fabric used as a presaturated wiper according to Yahiaoui, will fail to meet the claimed particle release parameters.

Applicants respectfully submit that the case is in condition for allowance and respectfully request the same.

June 4, 2001

Respectfully requested,



William S. Parks

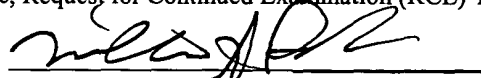
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to The Commissioner of Patents and Trademarks, Washington, DC 20231, on June 4, 2001, along with Supplemental Disclosure Statement, attached 4 Patent/Reference documents, Form PTO-1449 (Modified), Affidavit of Dr. Brian G. Morin, Request for Extension of Time, Request for Continued Examination (RCE) Transmittal, and a postcard receipt.


William S. Parks, Attorney for Applicant(s)